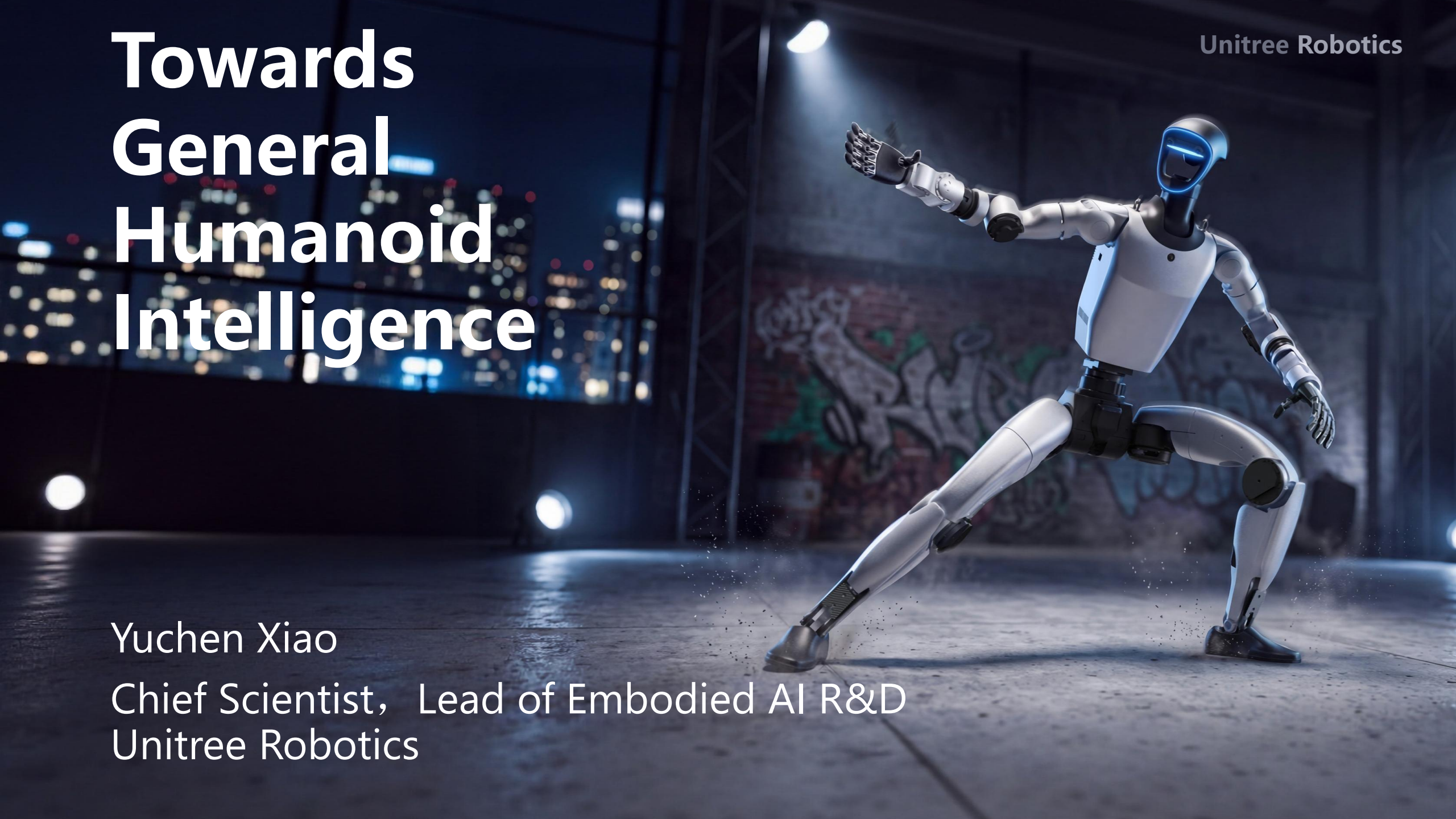
Towards General Humanoid Intelligence



Yuchen Xiao

Chief Scientist，Lead of Embodied AI R&D
Unitree Robotics

Product Overview



XDog

2013~2016

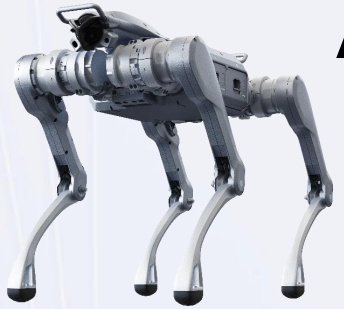


B2

2023

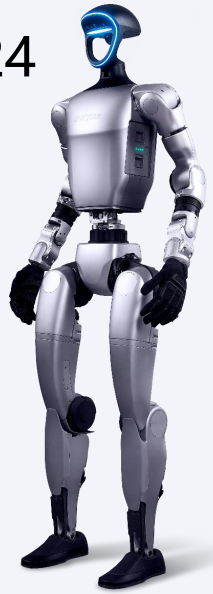


Go2



A2

2024



G1

2025



H2

2026



G1+

Unitree G1

5,2024

The world's most classic and best-selling robot









3D LIDAR
LIVOX-MID360

Depth Camera
Intel RealSense D435i

Microphone Array
Noise Cancellation,Echo Cancellation

Speaker
Stereo,5W Power

Single Arm Degrees of Freedom
Shoulder 3+Elbow 2+Wrist 2(optional)

Extra large quick release battery
Provide lasting power

Core Motion Module
Maximum Torque at joints 120 N.m

Hollow joint wiring of the whole machine
No external cables

Single leg degrees of freedom
Hip 3 + Knee 1 + Ankle 2

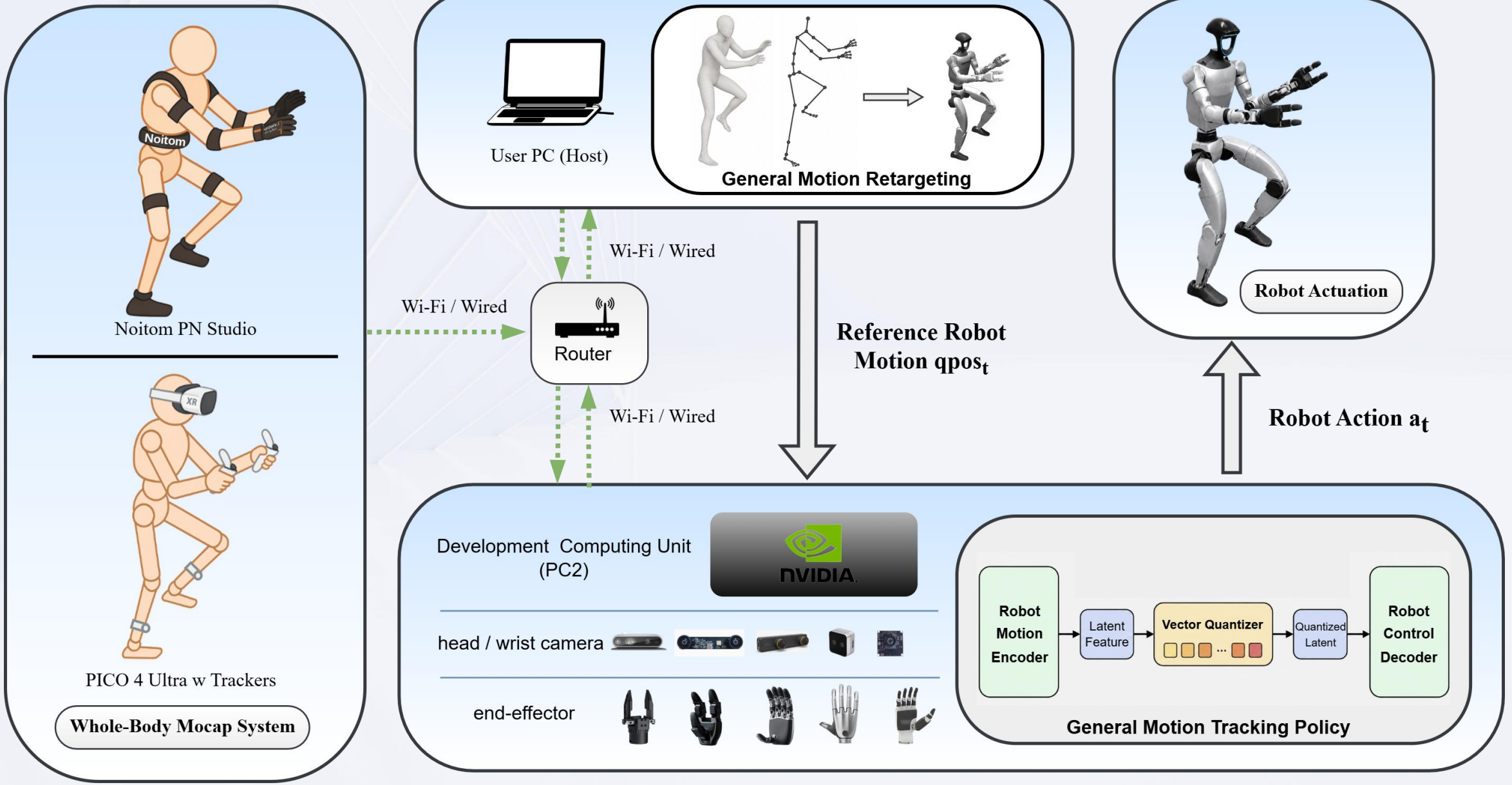
Mobility
Moving speed of 2m/s

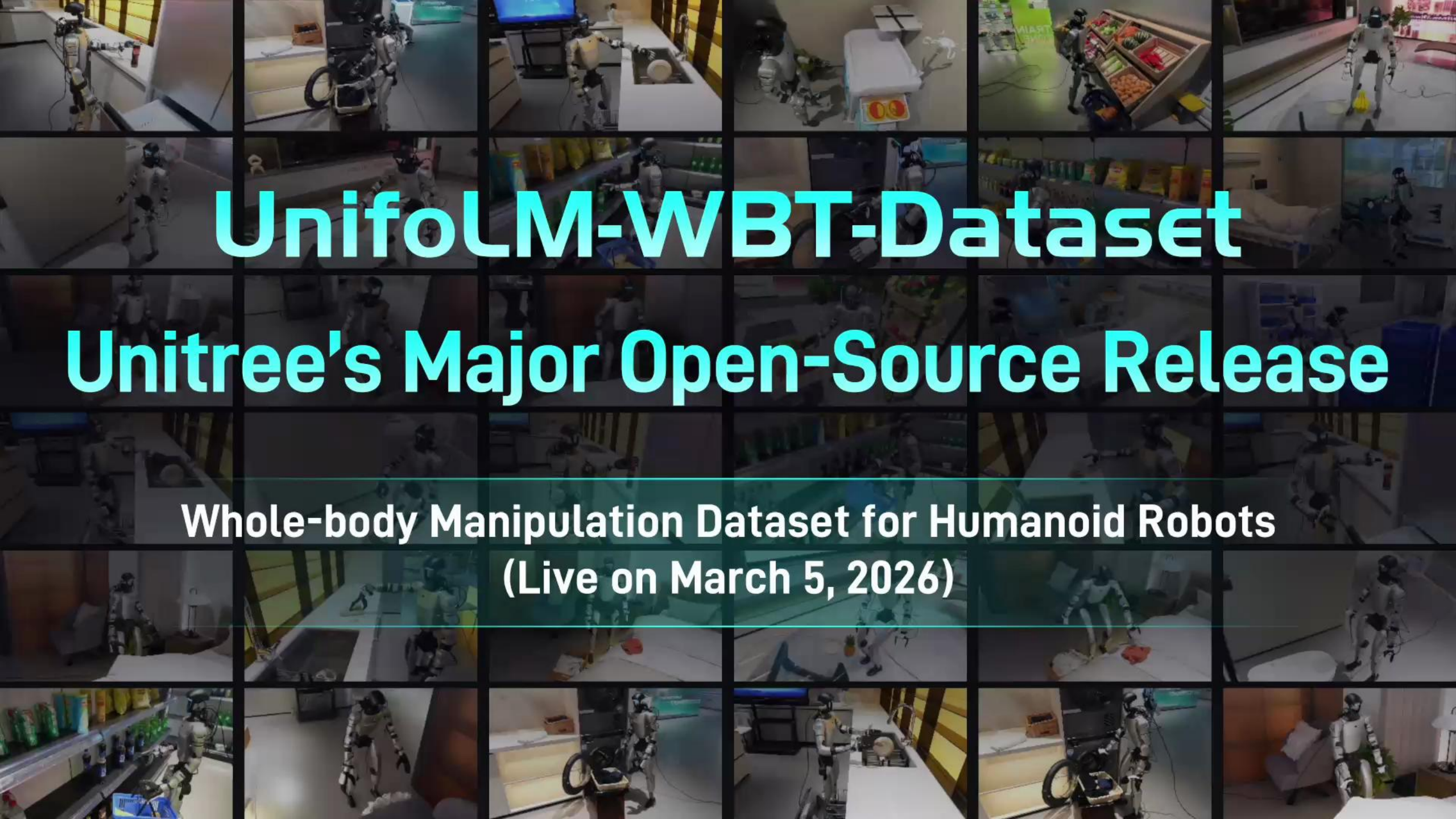



Embodied Avatar
Full-body
Teleoperation Platform

Whole-Body-Teleoperation System

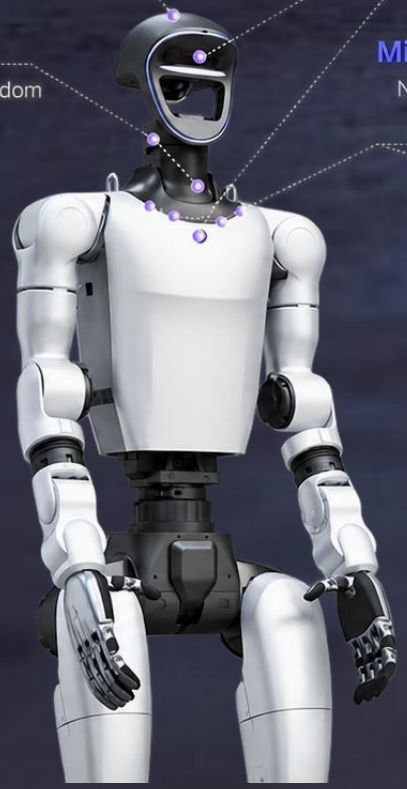
Unitree Robotics




UnifoLM-WBT-Dataset
Unitree's Major Open-Source Release
Whole-body Manipulation Dataset for Humanoid Robots
(Live on March 5, 2026)

Unitree G1+

9,2026



Head Touch

5 high-sensitivity touch points

Head Motor

Pitch + yaw, 2 degrees of freedom

Multi-vision perception

Dual 2MP global-shutter cameras + a wide-angle monocular camera

Microphone array

Noise Reduction and Echo Cancellation



Rear external power input

DC 54.6V, ≤7.4A

Wireless microphone charging case

50 m transmission range, 80 dB signal-to-noise ratio

+2DOF	+110%	+43%	Endurance
Neck degrees of freedom	Shoulder & waist motor torque	Maximum arm torque	Continuous External Power Supply Charging

Unitree Open-Source Datasets

Keep Rolling Update

Unitree Robotics

AI & ML interests

None defined yet.

Recent Activity

rdrhj updated a collection 3 days ago
UnifoLM_R1_Dex1_Dataset

rdrhj updated a collection 3 days ago
UnifoLM_R1_Dex1_Dataset

rdrhj updated a collection 3 days ago
UnifoLM_R1_Dex1_Dataset

View all activity

Team members 15



unitreerobotics 's collections 11

UnifoLM_R1_Dex1_Dataset

- unitreerobotics/R1_Dex1_Fold_Towel
  Unitree_R1_A7_Dex1 • Update... • 29 episodes • 572 • 1
- unitreerobotics/R1_Dex1_Pour_Popcorn_Between_...
  Unitree_R1_A7_Dex1 • Updated 4 da... • 32 episodes • 511
- unitreerobotics/R1_Dex1_Put_Pens_Into_Drawer
  Unitree_R1_A7_Dex1 • Update... • 42 episodes • 560 • 1
- unitreerobotics/R1_Dex1_Set_Plates

UnifoLM-WLA-1.0

- unitreerobotics/UnifoLM-WLA-1.0-Base
  Updated 14 days ago • 305 • 5
- unitreerobotics/UnifoLM-ER-Flow
  4B • Updated about 1 month ago • 707 • 14
- unitreerobotics/UnifoLM-ER-1
  4B • Updated about 1 month ago • 805 • 11

UniBot-V1 Challenge Dataset Collection

UniBot-V1 Challenge Dataset

- unitreerobotics/G1_Dex1_HangCup
  Viewer • Updated Jun 30 • 44 • 1.66k • 4
- unitreerobotics/G1_Dex1_ArrangePlates
  Viewer • Updated Jun 30 • 115 • 1.08k • 1
- unitreerobotics/G1_Dex1_ArrangeTestTubes
  Viewer • Updated Jun 30 • 108 • 836 • 1
- unitreerobotics/G1_Dex1_ZipUp

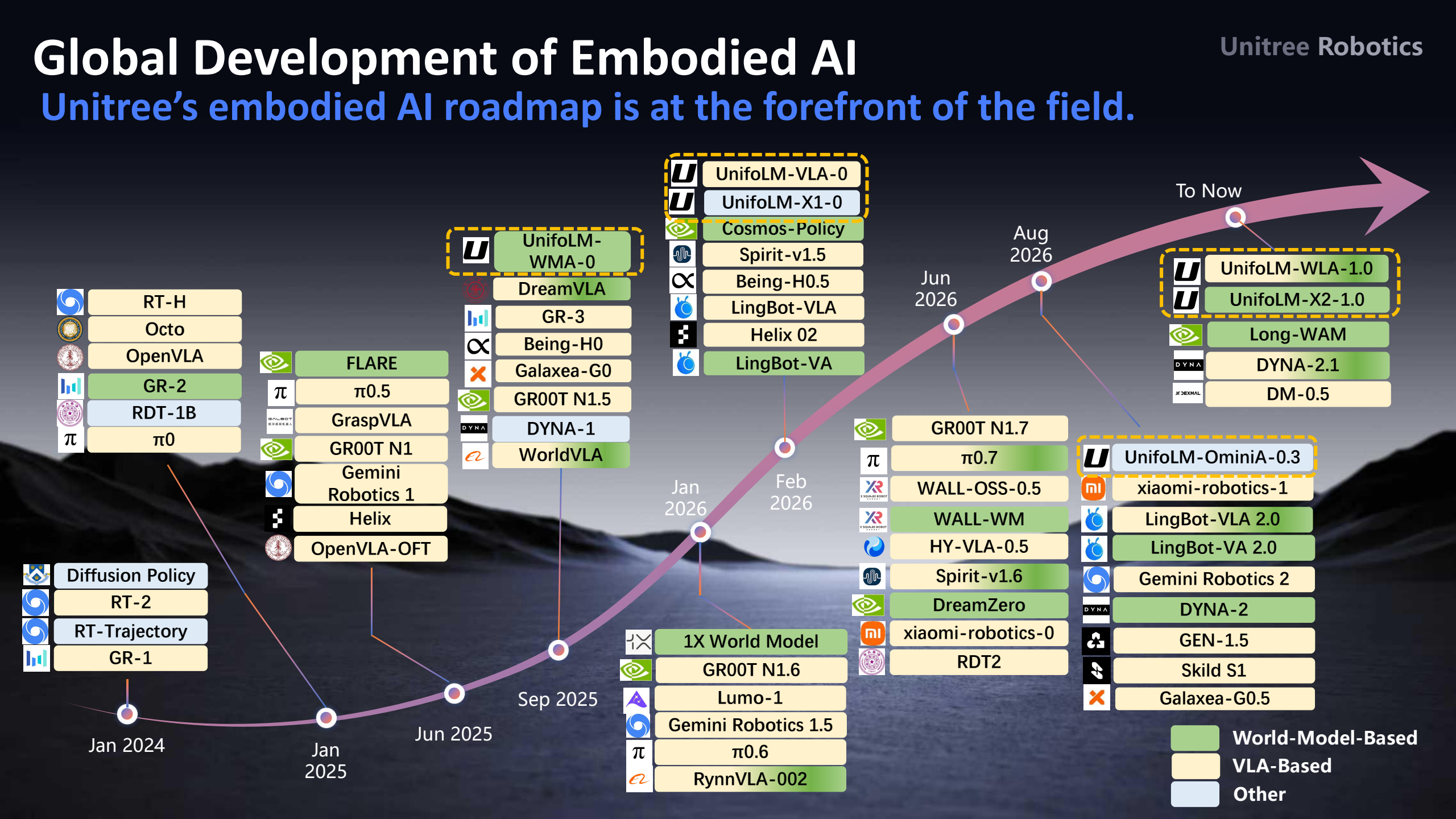
UnifoLM_G1_Dex1_DiverseManip_Dataset

- unitreerobotics/G1_Dex1_DiverseManip_DualArm_...
  Unitree G1 • Updated Mar 18 • 525 episodes • 692 • 4
- unitreerobotics/G1_Dex1_DiverseManip_DualArm_...
  Unitree G1 • Updated Mar 18 • 525 episodes • 757 • 2
- unitreerobotics/G1_Dex1_DiverseManip_SingleAr...
  Unitree G1 • Updated Mar 27 • 468 episodes • 656 • 3
- unitreerobotics/G1_Dex1_DiverseManip_SingleAr...

Global Development of Embodied AI

Unitree's embodied AI roadmap is at the forefront of the field.

Unitree Robotics




Fully Open Source
UnifoLM-WLA-1.0
Unitree General-Purpose
Humanoid Foundation Model
Fully Upgrade Major Open Source

UnifoLM-ER-1.0

Unitree Robotics

7 SOTA Results—Surpassing Open-Source Models Worldwide and Rivaling Leading Closed-Source Models

MODEL	OPEN SOURCE	SPATIAL UNDERSTANDING													MULTIMODAL UNDERSTANDING		
		ROBOVQA	EGO-PLAN2	REF SPATIAL BENCH	WHERE2 PLACE	PIXMO-POINT	BLINK	CV-BENCH	EMB SPATIAL	ROBO SPATIAL	SAT	VSI-BENCH	VSR	ERQA	REAL WORLDQA	MME	MMMU VAL
UnifoLM-ER-1-4B	Yes	62.4	55.1	**61.7**	**82.0**	**73.8**	**93.4**†	88.6	**88.9**	**73.1**	76.0	54.2	**88.1**	50.0	69.8	2223.3	54.7
RoboBrain2.0-7B*	Yes	30.0	33.23	42.2	63.6	54.7	83.9	85.7	76.3	54.2	75.3	36.1	84.0	/	69.4	2057.4	44.4
Robix-7B*	No	**63.6**	/	/	41.9	29.5	87.6	86.5	77.4	/	71.1	44.6	83.3	42.5	70.7	2332.8	/
Pelican-7B*	Yes	31.8	33.7	22.3	57.3	20.4	/	79.4	73.2	57.5	52.0	52.8	82.2	39.8	69.3	2141.9	51.1
Cosmos-R1-7B*	Yes	38.8	26.0	5.6	2.9	8.2	/	76.7	68.9	42.4	**82.7**	25.4	82.4	/	67.6	2157.4	37.4
Cosmos3-Super-64B*	Yes	/	/	57.0	71.0	/	90.3†	88.0	/	70.0	/	60.9	/	51.2	/	/	/
Qwen3-VL-4B*	Yes	47.7	40.7	46.6	63.0	48.3	85.0†	85.1	79.6	61.7	68.7	59.3	81.6	41.3	71.0	2325.2	57.8
Qwen3-VL-8B*	Yes	43.3	49.7	54.2	61.9	51.0	73.8†	86.2	78.5	66.9	67.3	59.4	83.2	45.8	70.6	**2412.5**	**62.3**
Embodied-R1-3B*	Yes	51.8	26.5	39.7	69.5	49.4	78.5†	82.7	67.4	47.4	76.3	26.6	/	35.2	/	/	/
Embodied-R1.5-8B*	Yes	61.0	53.8	54.2	74.0	64.8	83.0†	86.9	78.1	69.7	74.7	56.1	/	46.0	/	/	/
Molmo2-ER-4B*	Yes	/	/	52.5	54.0	/	85.7†	87.8	78.8	/	78.0	**74.5**	/	46.8	/	/	/
Hy-Embodied-VLM-1.0* 30B-A3B	Yes	/	49.6	53.4	65.0	64.6	87.3†	**89.7**	82.7	69.4	78.0	/	/	**60.8**	/	/	/
MiMo-Emb-7B*	Yes	62.0	43.0	48.0	63.6	42.35	81.3	88.2	76.2	61.7	78.6	48.5	79.0	46.7	66.3	2320.8	26.4
Thinker-4B*	Yes	62.7	**63.7**	61.0	72.0	57.4	84.6	86.3	80.2	70.8	72.7	65.4	81.5	/	**71.9**	2323.4	46.2
Wall-OSS-0.5-3B*	Yes	/	/	/	15.0	/	/	/	/	/	/	/	/	33	44	/	/
Lumo-1-Stage1-7B*	No	/	/	51.0	69.1	/	82.4	86.4	75.6	62.6	74.7	/	/	/	/	/	/
Gemini-ER 2‡	No	/	/	35.4	/	/	90.6†	**90.4**	81.4	51.1	/	/	/	71.0	/	/	/
Gemini-ER 1.5‡	No	/	/	41.8	48.0	/	/	83.6	73.4	57.7	62.0	39.9	/	47.0	/	/	/
Gemini 2.5 Pro‡	No	/	/	33.6	37.0	/	88.6†	85.9	78.0	71.3	74.7	51.1	/	56.0	/	/	/
Gemini 2.5 Flash‡	No	/	/	41.2	48.0	/	80.3†	85.5	76.2	73.4	73.3	45.3	/	47.5	/	/	/
Gemini 3.1 Pro‡	No	/	/	70.0	61.0	/	86.1†	88.6	/	65.1	/	47.5	/	65.2	/	/	/
GPT-5.6-sol‡	No	/	/	58.3	51.1	/	85.6†	85.2	80.7	66.8	21.3	/	/	64.8	/	/	/
GPT-6-Astra‡	No	/	/	**79.6**	69.0	/	90.4†	87.3	83.3	**73.4**	31.3	/	/	**77.7**	/	/	/

* Results are sourced from the models' official technical reports or publicly available papers.

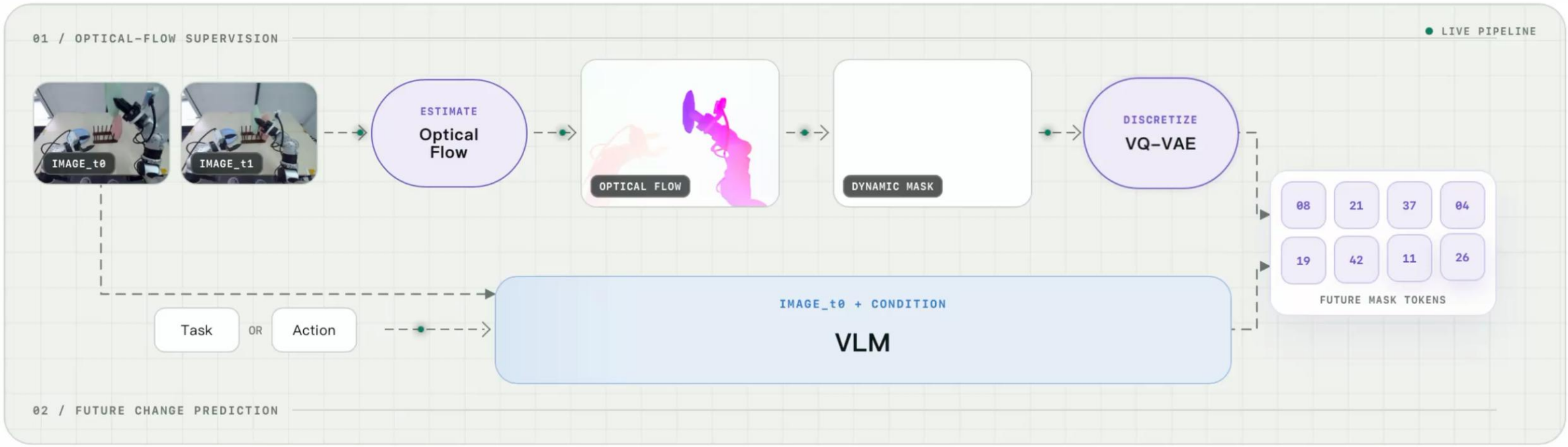
‡ Results were obtained through tests using the models' official APIs.

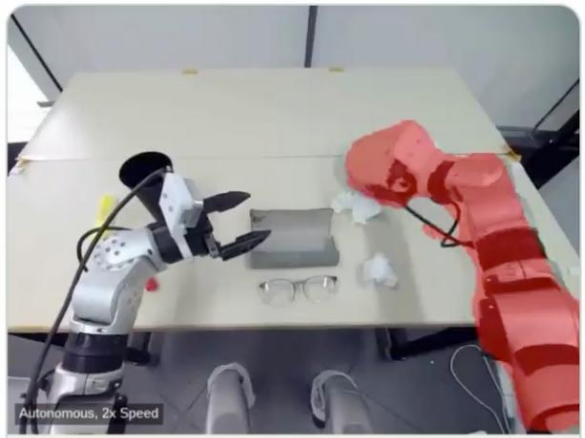
† BLINK scores are averaged over the Relative Depth and Spatial Relation subtasks only; all reported results were obtained in our own testing.

UnifoLM-ER-Flow

Unitree Robotics

Future Dynamic Regions Prediction Enables Interaction-Centric World Modeling





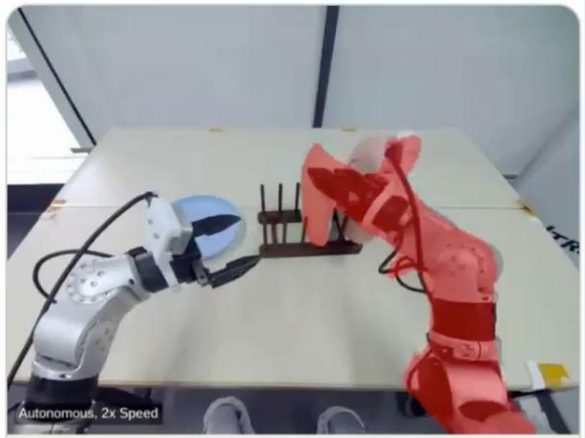
Clean table 01



Fold towel 02



Install phone 03

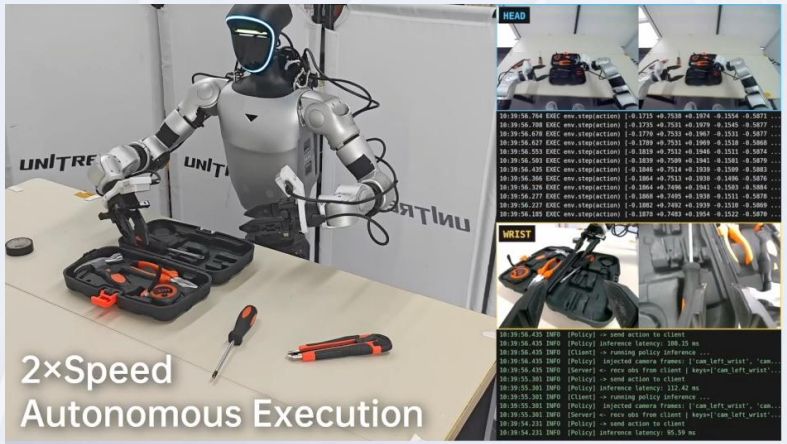


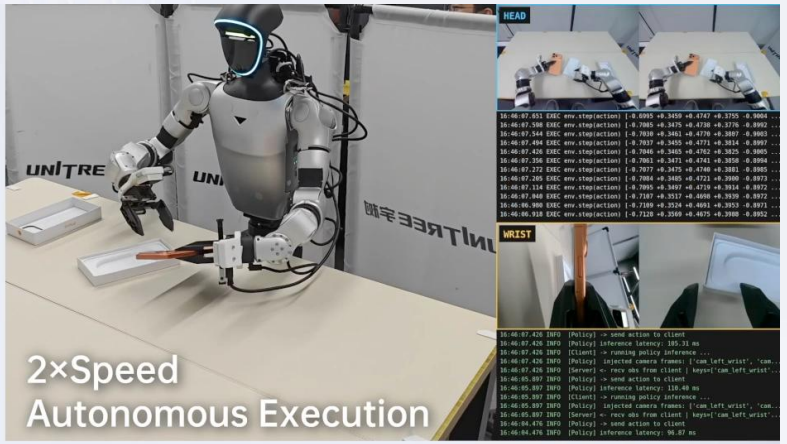
Place plates 04

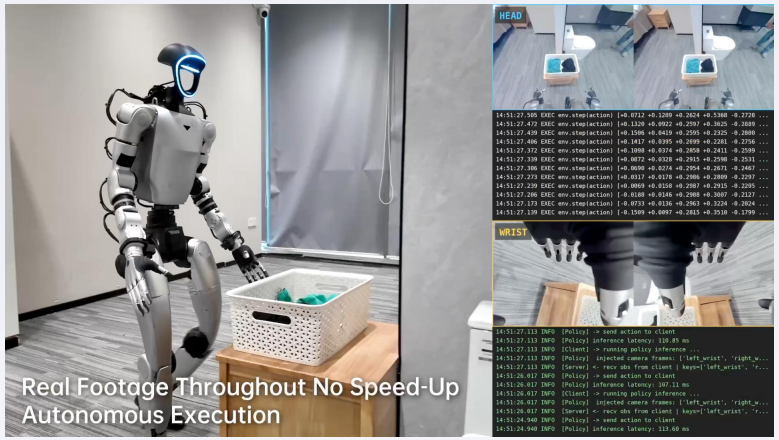
UnifoLM-WLA-1.0

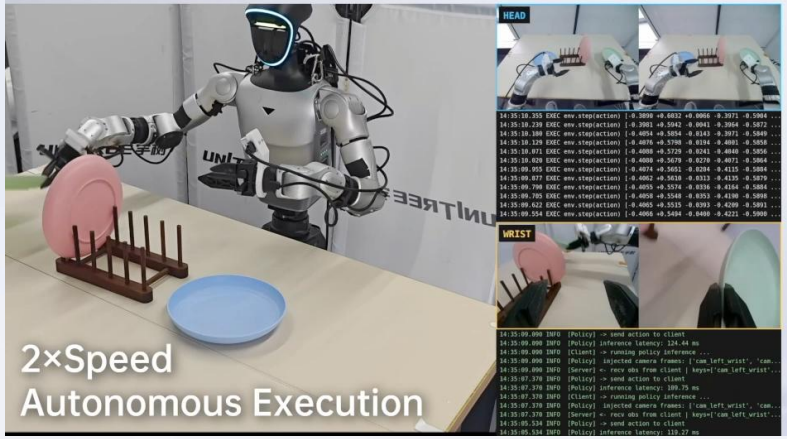
One Model Driven: supporting 64 diverse over table-top and whole-body manipulation tasks.

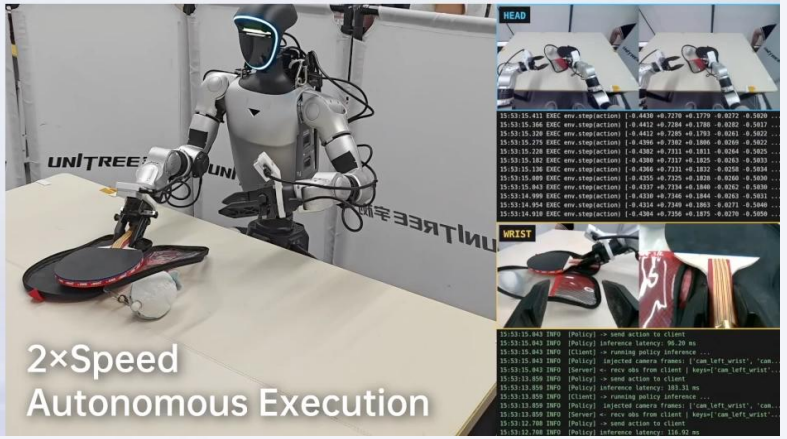
Unitree Robotics

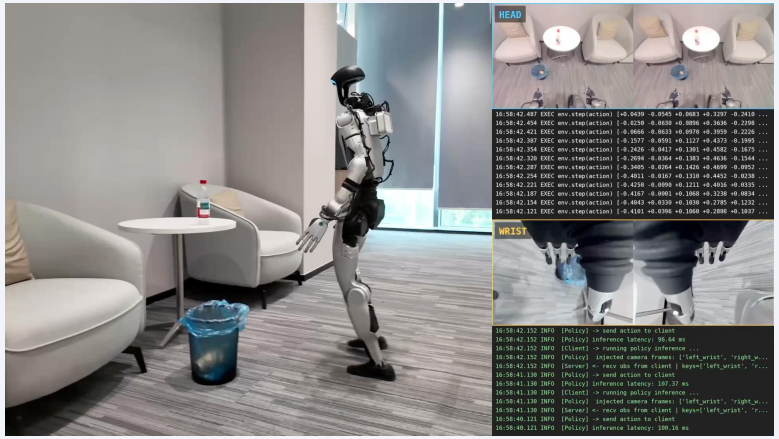












UniBot World Challenge:

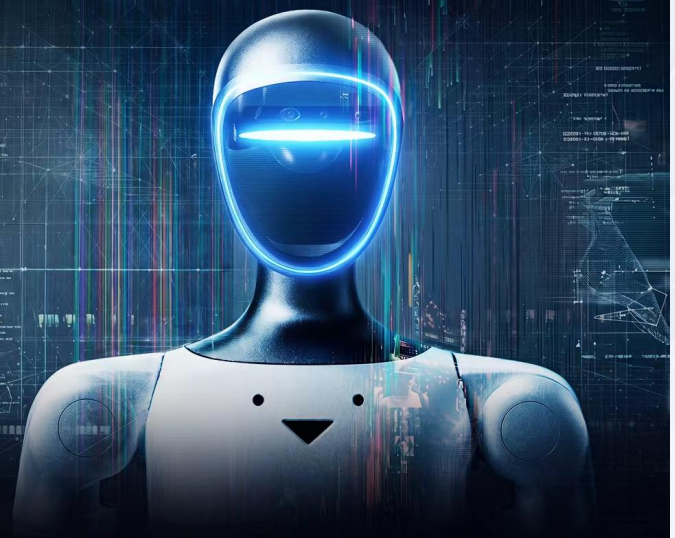
Unitree Robotics

Targets the core bottleneck — limited real-world generalization of embodied-AI models

Embodied AI · Manipulation · 2026

UNIBOT

WORLD CHALLENGE



This competition targets the generalization bottleneck of embodied AI foundation models via unified large-scale real-hardware evaluation on complex tabletop tasks, testing single-model multi-task performance.

PART 01

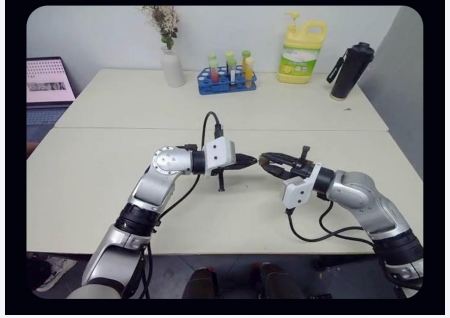
Challenge Details

Based on the Unitree G1 humanoid robot platform, evaluate the generalization ability of generalist models in real-world multi-task manipulation



Scoring uses average success rate and average step score, covering 5 generalization scenarios

- Position
- Distractors
- Table Background
- Unseen Objects
- Human Interference

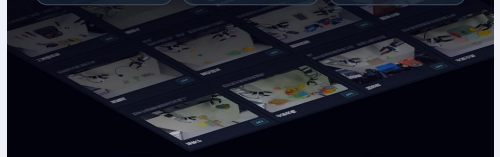


PART 02

Task Set

32 real-world tabletop manipulation tasks cover grasping, placing, and bimanual coordination

32	32000	169h
Task Count	Demo Samples	Data Duration



PART 03

Competition Vision

Accelerate real-world general manipulation for humanoids

01 Build high-quality real-robot data & multi-robot evaluation clusters

02 Build an evaluation system for humanoid manipulation generalization

03 Achieve cross-task, cross-object, anti-interference manipulation generalization

04 Accelerate the deployment of humanoid general manipulation capabilities

PART 04

Ready for the challenge?

Submit your model, run the evaluation, and rank on the UniBot-V1 Challenge leaderboard

Outstanding teams and models will be rewarded!

:challenge_support@unitree.com

:https://discord.com/invite/mhbdQpkf9Z

:https://github.com/unitreerobotics/unibot_submission

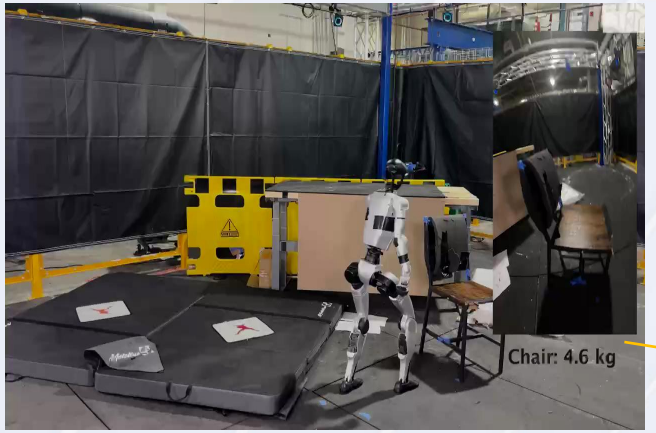
:https://huggingface.co/collections/unitreerobotics/unibot-v1-challenge

Challenge homepage

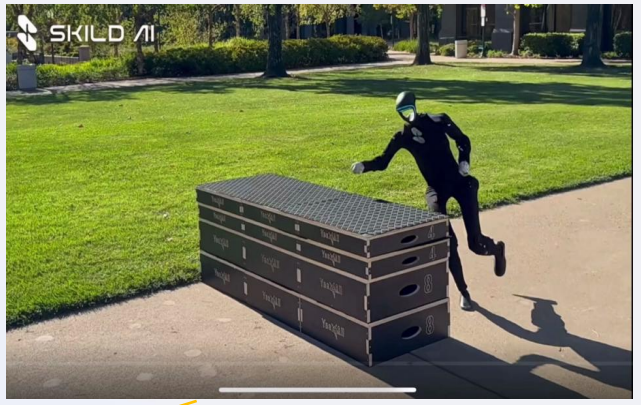
https://unibot.unitree.com

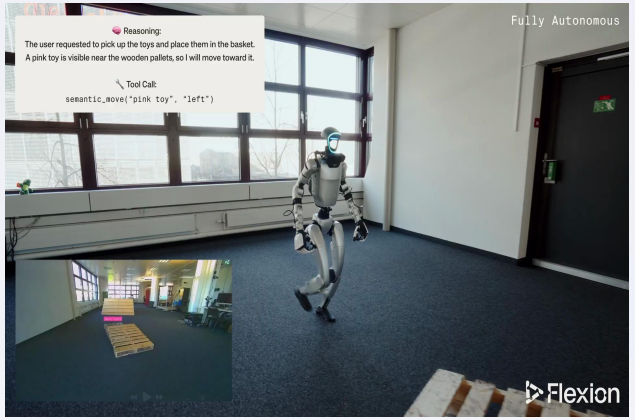
Unitree Global Ecosystem

Thanks to the joint efforts of people all over the world, the advancement of intelligent robot technology has been rapidly promoted.



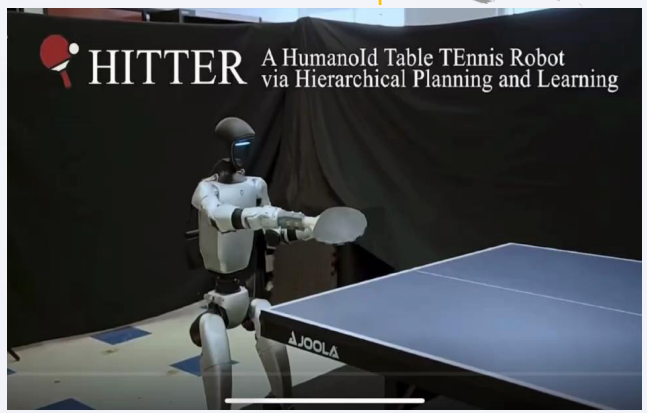


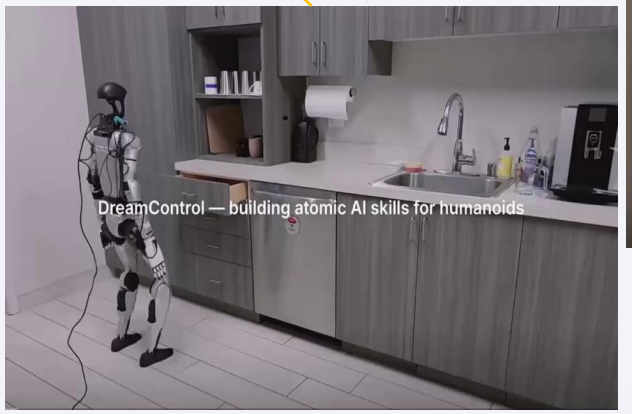










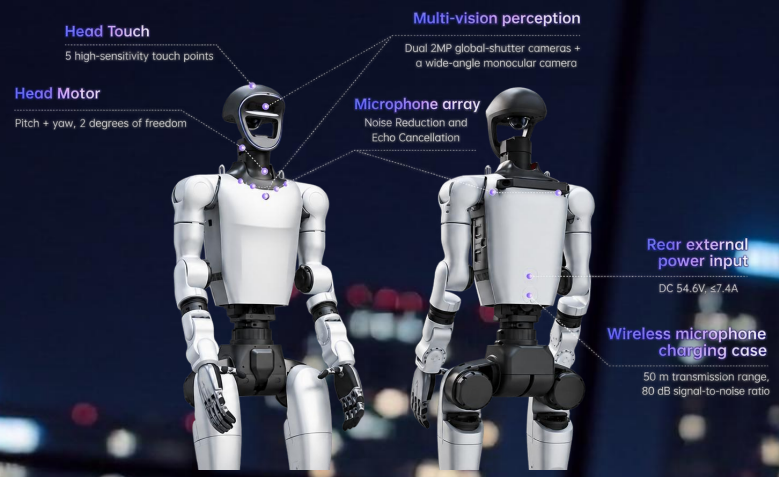




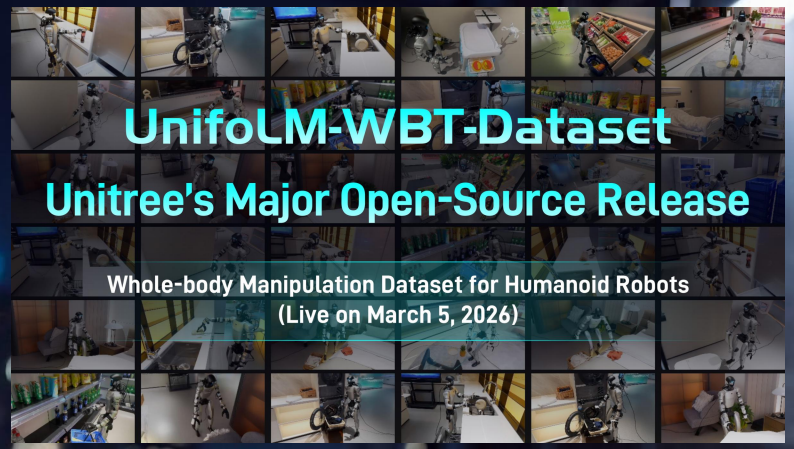
Next Mission: ChatGPT Moment for Embodied AI

Unitree Robotics

Level of autonomy	Autonomous vehicles	Humanoids
L5	Fully autonomous	Fully autonomous, generalizable over any tasks any environments
L4	Highly autonomous	ChatGPT moment: 80% success rate for 80% unseen tasks
	<10 years!	Next 2 years
L3	Self-driving with light intervention	Basic generalizability for manipulation tasks
L2	Tesla Autopilot	Advanced locomotion (Unitree) : the prerequisite for daily tasks
	~20 Years	~50 Years
L1	Cruise control	Basic motion
		First full-scale humanoid made in early 1970s



Humanoid Robots



Open-source Datasets



Open-source Models



Real-World Benchmark

Thank you!



Yuchen Xiao
Chief Scientist，Lead of Embodied AI R&D
Unitree Robotics